



ICTS

INTERNATIONAL
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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS String Seminar

Title : Cosmological Graphs from Scattering Amplitudes

Speaker : Chandramouli Chowdhury (University of Southampton, United Kingdom)

Date : Thursday, 08 January 2026

Time : 2:00 PM (IST)

Abstract : We analyze cosmological (in-in) correlators and the wave function of the universe in dS at tree and loop levels. We demonstrate a hidden simplicity in the structure of in-in correlators (compared to the wavefunction) arising by adding various building blocks, which allows us to obtain a new integral representation for the in-in correlators in terms of scattering amplitudes in flat space. Therefore, enabling us to study cosmological graphs by exploiting amplitude tools and derive new relations for in-in correlators. Since dS wave functions are equivalent to AdS correlators by analytic continuation, a part of the analysis is also valid for AdS correlators.

Venue : Emmy Noether Seminar Room

Zoom Link: <https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09>

Meeting ID: 880 9276 6911

Passcode: 232322